



Management Area 16 Howell Creek

MANAGEMENT AREA DESCRIPTION

Management Prescriptions - Management Area 16 has the following management prescriptions (see map on preceding page for distribution of prescriptions).

Management Prescription Category (MPC)						
2.2 – Research Natural Areas	Trace					
4.1c – Maintain Unroaded Character with Allowance for Restoration Activities						
4.2 – Roaded Recreation Emphasis						
6.1 - Restoration and Maintenance Emphasis within Shrubland & Grassland Landscapes						

General Location and Description - Management Area 16 is comprised of Forest Service administered lands within the Howell Creek and Marsh Creek drainages on the north side of the Albion Division of the Minidoka Ranger District (see Figure III-18). The entire area is in Cassia County, and the nearest large communities are Burley and Heyburn, about 15-20 miles to the northwest. Albion, a ranching community of less than 500 people, is only about 3 miles to the north. The management area is an estimated 13,500 acres, including three small private land inholdings, which make up about 2 percent of the area. The area is bordered by Sawtooth National Forest to the south and west, and by a mix of private and BLM administered land to the north and east. The primary uses in this area are developed recreation, livestock grazing, and special uses (ski area, summer homes, electronic communication sites).

Access - The main access to the area is the paved Howell Canyon Road, Forest Road 549, and the paved spur road into Lake Cleveland. These roads were paved in 1997, increasing both recreation use and road-related safety concerns in the area. Other roads in the area are mostly native-surfaced and four-wheel drive. The density of classified roads for the management area is an estimated 1.2 miles per square mile, and there are relatively few trails in this area. Total road density for area subwatersheds ranges between 0.3 and 2.2 miles per square mile.

Special Features - The Howell Creek to Mount Harrison corridor is a popular recreation area, featuring the Pomerelle Ski Area, campgrounds, picnic areas, Lake Cleveland, and the Thompson Flat Summer Home area. Part of the Mount Harrison Research Natural Area (381 total acres) preserves rare plant species and a representation of relatively undisturbed subalpine vegetation. A portion of the Mount Harrison Roadless Area comprises an estimated 61 percent of the management area.

Air Quality - This management area lies within Montana/Idaho Airshed ID-25 and in Cassia County. Particulate matter is the primary pollutant of concern related to Forest management. The closest ambient air monitor is located in Twin Falls. It is used to obtain current background levels, trends, and seasonal patterns of particulate matter. The closest Class I area is Craters of the Moon National Monument. Visibility monitoring has been expanded for the area.

Between 1995 and 1999, emissions trends in Cassia County improved for PM 10, while PM 2.5 emissions remained constant. The most common source of particulate matter within the county was fugitive dust from unpaved roads and agricultural activities such as tilling. In addition to Forest management activities, crop residue and ditch burning may contribute to particulate matter emissions. The amount of agricultural-related burning was among the highest in the state, over 22,500 acres. There were no point sources located within Cassia County.

Soil, Water, Riparian, and Aquatic Resources – Elevations range from 5,800 feet at the Forest boundary to 9,265 on Mount Harrison. Management Area 16 is predominantly in the Humboldt River High Plateau subsection, and the dominant landforms are fluvial mountains, plateaus and escarpments, and depositional lands. Slope gradients range from 40 to 70 percent on the fluvial mountains, to 0 to 30 percent on the plateaus and depositional lands, to near vertical on the escarpments. Surface geology is a mix of granitic and sedimentary materials. Soils generally have moderate surface erosion potential, and moderate productivity. Precipitation ranges from 40 inches at higher elevations to 10 inches near the Forest boundary. Much of the precipitation falls as snow during the winter and spring months, with snow depths often exceeding 20 feet. Subwatershed vulnerability ratings for the area are all low (see table below). Geomorphic Integrity ratings for the subwatersheds vary moderate (functioning at risk) to low (not functioning appropriately), with the majority being moderate (see table below). Some areas have impacts from roads, livestock grazing, and recreation. These localized impacts include accelerated erosion, upland compaction, and stream bank and channel modification.

The management area is comprised of portions of the Burley and Marsh Creek Watersheds that drain northward into the Snake River Basin. The main streams in the area are Howell Creek, Marsh Creek, and Land Creek. Lake Cleveland sits in an alpine cirque basin on the northeast side of Mount Harrison. This natural lake has been augmented by a low dam to help provide for off-Forest irrigation. Water Quality Integrity ratings for the subwatersheds are all moderate (functioning at risk) (see table below). Some areas have localized impacts from accelerated sediment from roads, livestock grazing, and dispersed and developed recreation. There are currently no water bodies listed as impaired under Section 303(d) of the Clean Water Act; however, the entire management area is within a TMDL-assigned subbasin.

	waters Inerabi		Geomorphic Integrity			Water Quality Integrity				No. Subs	No. Public
High	Mod.	Low	High	Mod.	Low	High	Mod.	Low	303(d) Subs	With TMDLs	Water System Subs
0	0	4	0	3	1	0	4	0	0	4	0

No currently listed Threatened or Endangered fish species occur in Management Area 16. Small populations of rainbow trout and Yellowstone cutthroat trout may exist in area streams. Brook trout have been introduced to Howell Creek and are now the predominant species in the creek. Lake Cleveland is stocked with rainbow trout. Aquatic habitat is functioning at risk in some areas due to localized sedimentation impacts from roads, livestock grazing, and dispersed and developed recreation. The entire management area has been identified as important to maintaining or restoring strong populations of Yellowstone cutthroat trout. This management area is therefore a high-priority area for restoration.

Vegetation - Vegetation is naturally patchy in much of the area, with islands of coniferous forest surrounded by sagebrush/grass communities. Lower and mid-elevations feature sagebrush/grassland communities on south and east aspects. North aspects support Douglas-fir forests with some aspen. Lodgepole pine occurs in frost pockets and cold air drainages. Subalpine fir and aspen dominate at mid to high elevations. Limber pine and Engelmann spruce are found at the highest elevations interspersed with rock ledges, talus slopes, and alpine meadows.

An estimated 51 percent of the management area is non-forested, or covered by grasslands, shrublands, meadows, rock, or water. Much of this area is comprised of the Mountain Big Sagebrush, Basin Big Sage, and Low Sage vegetation groups. The dominant forested vegetation groups are Aspen (8 percent), Persistent Lodgepole Pine (30 percent), and Cool Dry Douglas-Fir (5 percent).

The Low Sage group is at properly functioning condition. The Mountain Big Sagebrush and Basin Big Sage groups are functioning at risk due to fire exclusion and livestock grazing impacts, which have altered structure and species composition. Fire exclusion and livestock grazing have allowed canopy cover to increase, which has reduced the understory herbaceous cover. Non-native grasses have been extensively seeded on lands adjacent to the Forest, with some seeding on Forest as well.

The Persistent Lodgepole Pine group is functioning at risk because fire exclusion has resulted in older, more decadent stands with more shade-tolerant subalpine fir and less seral species, particularly aspen and lodgepole pine. The Aspen and Cool Dry Douglas-Fir groups are functioning at risk because aspen stands are dying out or being replaced by conifers. Most of the Douglas-fir stands are in mid-aged structural stages, with few young and old trees present.

Riparian vegetation is functioning at risk in localized areas due to grazing and dispersed recreation impacts, and fire exclusion. In some areas, introduced grasses and noxious weeds are replacing native plants. Cottonwood and willow communities are becoming old and decadent, and are not regenerating due to fire exclusion and livestock use. Snag levels are below historic levels in some areas due to fuelwood gathering.

Botanical Resources – Christ's Indian paintbrush, a Candidate species for federal listing, is found globally in only one location at the top of Mount Harrison. An estimated 23 percent of the population (90 acres) occurs in the Mt Harrison Research Natural Area. A conservation agreement exists between the Forest Service and the U.S. Fish and Wildlife Service for this species. Davis' wavewing, a Region 4 Sensitive species, is found in the management area. No federally listed or proposed plant species are known to occur in the area, but potential habitat exists for Ute ladies'-tresses and slender moonwort. Ute ladies'-tresses, a Threatened species, may have moderate potential habitat in riparian/wetland areas from 1,000 to 7,000 feet. Slender moonwort, a Candidate species, may occur in moderate to higher elevation grasslands, meadows, small openings in spruce and lodgepole pine, and open rocky outcrops.

In addition to having the only known population of Christ's Indian paintbrush, the summit of Mount Harrison has two of the largest intact tall forb communities remaining in Idaho. These communities are characterized by tall (16- to 48-inch) luxuriant plant communities comprised of

mesic forbs. Tall forb communities typically cover highly erosive soils that rapidly erode without protective vegetation. There is a need to establish the Mount Harrison Botanical Special Interest Area to maintain the tall forb communities, the Christ's Indian paintbrush population not encompassed in the RNA, and the other endemic rare plant species found on Mount Harrison.

Non-native Plants – A number of noxious weeds and exotic plants occur in the management area, especially along main travel corridors and in areas of high activity. The main weeds of concern are leafy spurge, spotted knapweed, and Canada thistle, which currently occur in small, scattered populations. An estimated 15 percent of the management area is highly susceptible to noxious weed and exotic plant establishment and spread.

Wildlife Resources - The shrublands and forests provide sage grouse habitat and big game summer range but not much winter range. Nesting and foraging habitats for northern goshawk, a Region 4 sensitive species, are found in the mid-elevation forests, and the rocky bluffs have potential peregrine falcon nesting habitat. The area is within lynx habitat as identified in the Canadian Lynx Conservation Assessment and Strategy (2000). High-elevation forests provide mule deer summer range, and nesting and foraging habitat for boreal. Other species present include mountain lion, migratory land birds, small populations of elk, spotted and Townsend's big-eared bats, blue grouse, and occasionally moose. Terrestrial habitat is properly functioning for the most part. Except in the Howell Creek corridor, the level of human disturbance is low, and habitat fragmentation from roads, development, and fire is relatively low.

Recreation Resources - Management Area 16 offers year-round recreation opportunities, including alpine and Nordic skiing, camping, hunting, fishing, horseback riding, mountain biking, and hang gliding. Most use is concentrated along the Howell Canyon Road corridor that has the Pomerelle Ski Area, developed campgrounds, a picnic area, a winter sports parking area and shelter, Lake Cleveland, the Thompson Flat Summer Home area, and the Mount Harrison Lookout. This area attracts an estimated 200,000 visitors a year, and visitation is expected to increase with the recent paving of Howell Creek Road and proposed Pomerelle Ski Area expansion, which has recently been approved. The management area is in Idaho Fish and Game Management Unit 55; however, there is no elk-hunting season currently in this unit. Most of the users come from the Magic Valley (Twin Falls, Rupert, Burley). Although there are few trails in the area, a developed trailhead provides access to the 21-mile Skyline Trail. A number of developed recreational improvements have recently occurred, including campground reconstruction, trailhead construction, trail relocation, and hazard tree removal. Recreational special uses in the area include the Thompson Flat recreation residence tract and the Pomerelle Ski Resort.

Cultural Resources – Cultural themes in this area include prehistoric, recreation, and Forest Service Administration. A few prehistoric sites have been documented. Shoshone-Bannock Tribes moved through the region on seasonal rounds, traveling to winter camps near Fort Hall. Historically, the remains of a Civilian Conservation Corps camp and constructed ski area, and a campground are found in the drainage. The Civilian Conservation Corps also constructed a Forest Service guard station; however, the structures have been moved since. The canyon has been used historically for recreation.

Timberland Resources - Of the estimated 4,500 tentatively suited acres in this management area, 1,600 acres have been identified as being suited timberlands, or appropriate for timber production. This represents about 1 percent of the Forest's suited timberland acres. The suited timberland acres are found in MPCs 4.2 and 6.1, as shown on the map displaying the MPCs for this management area. Lands within MPC 4.1c are identified as not suited for timber production. The focus of management is maintaining healthy forests and high scenic quality. Tree harvest has centered on the salvage of insect-killed Douglas-fir and lodgepole pine in Howell Canyon. About 700 acres have been treated recently, and another 300 acres of treatment are planned. Forest products such as fuelwood, posts, poles, and Christmas trees are collected in designated areas. Aspen regeneration is also a management goal.

Rangeland Resources - This area contains all or portions of three cattle allotments, and provides 4,000 acres of capable rangeland, which represents less than 1 percent of capable rangeland on the Forest.

Mineral Resources - Current mining activity is very low (one claimant). Most mining activity stopped in the early 20th century. Potential for mineral development is considered low. An estimated 3,800 acres in Howell Canyon have been withdrawn from mineral entry primarily to protect high recreational values.

Fire Management - No large fires have occurred in this area in the last 15 years. There are no National Fire Plan communities in this area, but Howell Creek is considered a wildland-urban interface subwatershed due to development (summer homes, ski area, campgrounds) within this area. The Howell Creek and Upper Marsh Creek subwatersheds are considered to pose risks to life and property from potential post-fire floods and debris flows. Historical fire regimes for the area are estimated to be 2 percent lethal and 98 percent mixed1 or 2. None of the area regimes has vegetation conditions that are highly departed from their historical range. However, 48 percent of the area regimes have vegetation conditions that are moderately departed from their historical range. Wildfire in these areas may result in larger patch sizes of high intensity or severity.

Lands and Special Uses - Special-use authorizations include the Thompson Ridge designated communication site, the Lake Cleveland dam and diversion, an irrigation ditch in lower Howell Canyon, and a facility for measuring precipitation in upper Howell Canyon.

MANAGEMENT DIRECTION

In addition to Forest-wide Goals, Objectives, Standards, and Guidelines that provide direction for all management areas, the following direction has been developed specifically for this area.

Resource/Program	Direction	Number	Management Direction Description
MPC 2.2 Research Natural Areas	General Standard	1601	Mechanical vegetation treatments, salvage harvest, prescribed fire, and wildland fire use may only be used to maintain values for which the area was established, or to achieve other objectives that are consistent with the RNA establishment record or management plan.

Resource/Program	Direction	Number	Management Direction Description				
MPC 2.2 Research Natural Areas	Road Standard Fire Guideline	1602	Road construction or reconstruction may only occur where needed: a) To provide access related to reserved or outstanding rights, or b) To respond to statute or treaty, or c) To maintain the values for which the RNA was established. The full range of fire suppression strategies may be used to suppress wildfires. Fire suppression strategies and tactics should minimize				
	Guideille		impacts to the values for which the RNA was established.				
MPC 4.1c Undeveloped Recreation: Maintain Unroaded	General Standard	1604	Management actions—including mechanical vegetation treatments, salvage harvest, wildland fire use, prescribed fire, special use authorizations, and road maintenance—must be designed and implemented in a manner that would be consistent with the unroaded landscape in the temporary, short term, and long term. Exceptions to this standard are actions in the 4.1c Roads standards, below.				
Character with Allowance for Restoration	Road Standard	1605	Road construction or reconstruction may only occur where needed: a) To provide access related to reserved or outstanding rights, or b) To respond to statute or treaty.				
Activities	Fire Guideline	1606	The full range of fire suppression strategies may be used to suppress wildfires. Emphasize tactics that minimize impacts of suppression activities on the unroaded landscape in the area.				
MPC 4.2 Roaded Recreation	Vegetation Guideline	1607	Vegetation management actions—including wildland fire use, prescribed fire, and mechanical treatments—may be used to maintain or restore desired vegetation and fuel conditions provided they do not prevent achievement of recreation resource objectives.				
Emphasis	Fire Guideline	1608	The full range of fire suppression strategies may be used to suppress wildfires. Emphasize strategies and tactics that minimize impacts to recreation developments and investments.				
	Vegetation Guideline	1609	Any vegetation treatment activity may be used to restore or maintain desired vegetation and fuel conditions. The available vegetation treatment activities include wildland fire use. Salvage harvest may also occur.				
MPC 6.1 Restoration and Maintenance	Fire Guideline	1610	The full range of fire suppression strategies may be used to suppress wildfires. Emphasize strategies and tactics that minimize impacts to habitats, developments, and investments.				
Emphasis within Shrubland and Grassland Landscapes	Road Guideline	1611	 Road construction or reconstruction may occur where needed: a) To provide access related to reserved or outstanding rights, or b) To respond to statute or treaty, or c) To achieve restoration objectives for vegetation, water quality, aquatic habitat, or terrestrial habitat; or d) To support management actions taken to reduce wildfire risks in wildland-urban interface areas; or e) To meet access and travel management objectives. 				
	Objective	1612	Restore soil productivity by reducing soil compaction related to dispersed recreation activity in the Howell Creek drainage.				
Soil, Water, Riparian, and	Objective	1613	Maintain habitat conditions that are functioning appropriately for brook trout in Howell Creek.				
Aquatic Resources	Objective	1614	For the Rose–Albion and Upper Marsh Creek TMDL, develop and implement a restoration plan and/or appropriate Best Management Practices that will provide water quality restoration.				

Resource/Program	Direction	Number	ımber Management Direction Description			
	Objective	1615	Increase seral lodgepole pine, aspen, and Douglas-fir in the Persistent Lodgepole Pine and Cool Dry Douglas-Fir vegetation groups, as described in Appendix A.			
Vegetation	Objective	1616	Restore and maintain desired size class structure and diversity in the Aspen vegetation group, as described in Appendix A, by promoting regeneration.			
	Objective	1617	Maintain or restore Low Sage and tall forb communities.			
	Objective	1618	Restore Mountain Big Sagebrush canopy cover to desired conditions, as described in Appendix A, in Broad Hollow, Brim Canyon, and Cooney Hollow.			
	Objective	1619	Preserve botanical resources in the Mount Harrison RNA consiste with the establishment guidelines.			
	Objective	1620	Develop and implement an interpretive program to reduce risks to Christ's Indian paintbrush and educate the public of its uniqueness.			
	Objective	1621	Establish the Mount Harrison Botanical Special Interest Area to maintain the Christ's Indian paintbrush population, tall forb communities, and other botanical resources.			
	Objective	1622	Develop and implement a management plan for the Mount Harrison Botanical Special Interest Area.			
Botanical	Objective	1623	Maintain and restore populations and occupied habitats of TEPCS species, including Christ's Indian paintbrush and Davis' wavewing, to contribute to their long-term viability of these species.			
Resources	Objective	1624	Emphasize reducing Canada thistle, spotted knapweed, and other non- native species within TEPCS plant actual and potential habitat.			
	Standard	1625	Maintain habitat and populations of Christ's Indian paintbrush consistent with the conservation strategy developed and signed by the Sawtooth National Forest.			
	Standard	1626	Do not allow commercial plant or seed collection at the summit of Mt. Harrison to help retain the rare plant species that currently occupy that site.			
	Guideline	1627	Coordinate forested and grassland/shrubland restoration, prescribed fire, and non-native plant eradication efforts with a Forest Botanist to minimize impacts to TEPCS plant species, actual or potential habitat, and pollinators.			
Non-native	Objective	1628	Prevent establishment of new invader species, with emphasis in the Howell Canyon Road corridor.			
Plants	Objective	1629	Control or contain spotted knapweed, leafy spurge, and Canada thistle infestations.			
	Objective	1630	Maintain existing road closures to motorized vehicles in the Howell Creek drainage to reduce mule deer disturbance and vulnerability to harvest.			
Wildlife Resources	Guideline	1631	Management actions in sage grouse habitat should be designed to meet the desired conditions for sagebrush described in Appendix A. Where greater than 40 percent of the sage grouse habitat in the management area has less than 10 percent canopy cover, management actions should be designed to maintain or restore canopy cover conditions.			
Recreation Resources	Objective	1632	Resolve recreation/livestock conflicts in favor of recreation in the Howell Creek drainage.			

reduce fuel loadings.

Resource/Program	Direction	Number	Management Direction Description
Facilities and Roads	Objective	1649	Maintain administrative access for roads constructed in conjunction with the Howell Canyon Timber Sale for continued long-term forest management.

Lake Cleveland

